



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,329	07/09/2001	Terry L. Cole	2000.053500	6034

23720 7590 10/14/2004

WILLIAMS, MORGAN & AMERSON, P.C.
10333 RICHMOND, SUITE 1100
HOUSTON, TX 77042

EXAMINER

MOORTHY, ARAVIND K

ART UNIT	PAPER NUMBER
----------	--------------

2131

DATE MAILED: 10/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/901,329

Applicant(s)

COLE ET AL.

Examiner

Aravind K Moorthy

Art Unit

2131

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☒ Claim(s) 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-19 are pending in the application.
2. Claims 1-19 have been rejected.

Claim Objections

3. Claim 18 is objected to because of the following informalities: misspelling. The word downconverting has been misspelled as "downconvetring". Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 1, 3, 4, 6-9, 11, 12, 14, 15 and 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Ashby et al U.S. Patent No. 5,305,384.**

As to claims 1, 9, 15 and 19, Ashby et al discloses a communications system, comprising:

a physical layer hardware unit adapted to communicate data over a communications channel, the physical layer hardware unit being adapted to receive unencrypted control codes and encrypted user data over the communications channel and transmit an upstream data signal over the communications channel based on the control codes [column 16, lines 17-59]; and

a processing unit adapted to execute a software driver for interfacing with the physical layer hardware unit, the software driver including program

Art Unit: 2131

instructions for implementing a protocol layer to decrypt the user data and provide the upstream data to the physical layer hardware unit [column 16, lines 17-59].

As to claims 3, 11 and 17, Ashby et al discloses that the physical layer hardware unit includes:

an analog front end adapted to sample a received signal over the communications channel to generate received signal samples [column 15 lines 22-38];

a downconverter adapted to process the received signal samples to generate a carrierless waveform including the user data [column 16, lines 17-59]; and

a demodulator adapted to demodulate the received signal samples to generate the control codes [column 16, lines 17-59].

As to claims 4, 12 and 18, Ashby et al discloses that the physical layer hardware unit includes control logic adapted to receive the control codes and configure the downconverter based on the control codes [column 16, lines 17-59].

As to claims 6 and 14, Ashby et al discloses that the physical layer hardware unit includes:

an upconverter adapted to receive the upstream data and generate an upstream digital signal, wherein the analog front end unit is further adapted to receive the upstream digital signal and generate the upstream data signal [column 15 lines 22-38]; and

Art Unit: 2131

control logic adapted to receive the control codes and configure the upconverter based on the control codes [column 14, lines 20-39].

As to claim 7, Ashby et al discloses that the processing unit comprises a computer [column 14, lines 20-39].

As to claim 8, Ashby et al discloses that the computer includes:

a processor complex adapted to execute the program instructions in the software driver [column 14, lines 20-39];

a bus coupled to the processor complex [column 18, lines 17-30]; and

an expansion card coupled to the bus, the expansion card including the physical layer hardware [column 18, lines 17-30].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 5, 10, 13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ashby et al U.S. Patent No. 5,305,384 as applied to claims 1, 9 and 15 above, and further in view of Fleming, III et al U.S. Patent No. 6,549,568 B1.

As to claims 2, 5, 10, 13 and 16, Ashby et al does not teach that the control codes includes at least one of a power level assignment, a frequency assignment, and a tune slot assignment.

Art Unit: 2131

Fleming, III et al teaches control codes that include at least one of a power level assignment, a frequency assignment, and a tune slot assignment [column 11 line 60 to column 12 line 13].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Ashby et al so that the control code would have been power level assignment.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Ashby et al by the teaching of Fleming, III et al because adjusting power in the modem it helps overcome rain fades in wireless or satellite systems [column 2, lines 39-46].

Art Unit: 2131


Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aravind K Moorthy whose telephone number is 703-305-1373. The examiner can normally be reached on Monday-Friday, 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R Sheikh can be reached on 703-305-9648. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Aravind K Moorthy
October 5, 2004


AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100